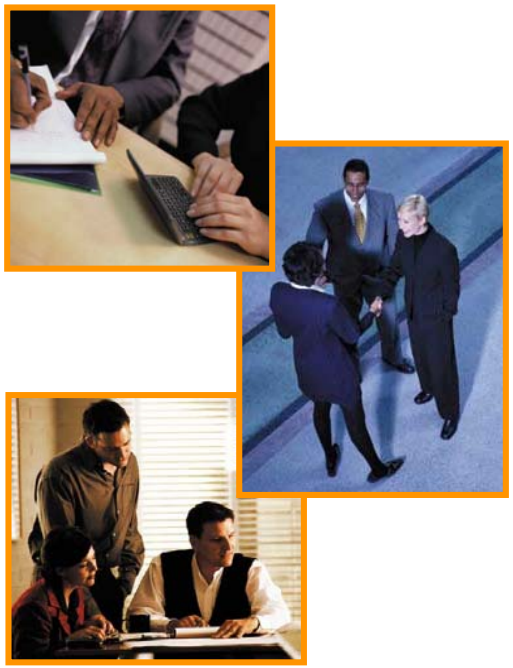
Gartner



The Lull Before The Storm

By Edward Fraga

October 19, 2001

Maricopa County, Arizona

Gartner Consulting

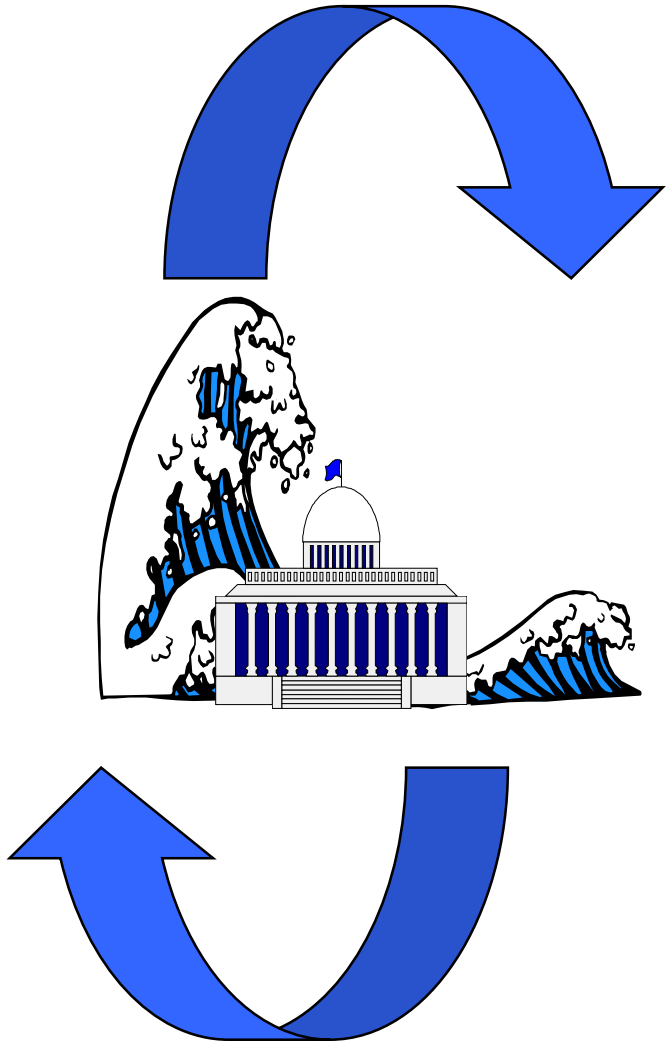
Gartner: Who Are We?

- Internationally recognized information technology research and consulting firm
- More than 35,000 individual clients
- Representing over 11,000 discrete organizations
- Served by more than 1,000 Gartner analysts and consultants
- Supported by over 3,000 full-time professionals
- In 80 offices around the world

- **Independent and objective**

Tsunami of Rising Expectations

- Y2K is over. Since then there has been a LULL.
- But, e-Government is a storm that is heading your way.
- It is a Tsunami of rising expectations of your customers based upon their experience in the private sector (Amazon, Dell, etc.)
- It will utterly transform government in the 21st Century
- The transformation will be a greater change than anything that occurred to government in the 20th Century
- What is this storm and how shall we meet it?



Key Issues

- What is e-government? How does it compare with e-business?
- What are key e-government trends?
- What are e-government drivers and challenges?
- What are e-government best practices Criteria?
- How should public sector agencies proceed in the development of e-government?
  - e-Governance
  - e-Strategic Planning
  - e-Architecture

What Is e-Gov and How Does It Compare with e-Business?

Goals of Business vs Government

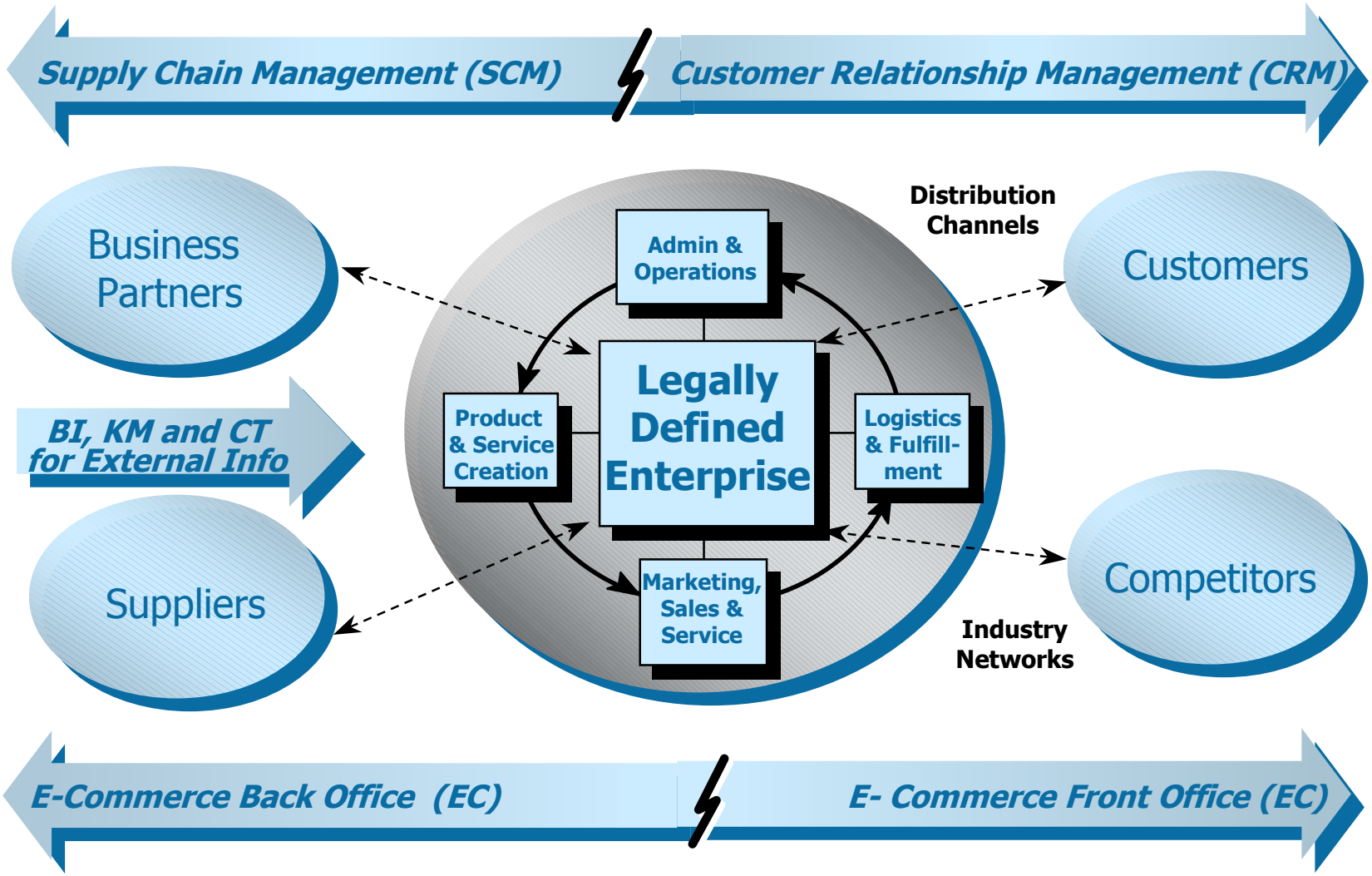
Goal of Business:

- As an Enterprise:
  - Primary Goal: To Be ***Profitable*** (***Efficient and Effective)***
  - Example: Manufacturing, Retail, Banking, Utilities, Airports, Harbors, etc.

Goal of Government:

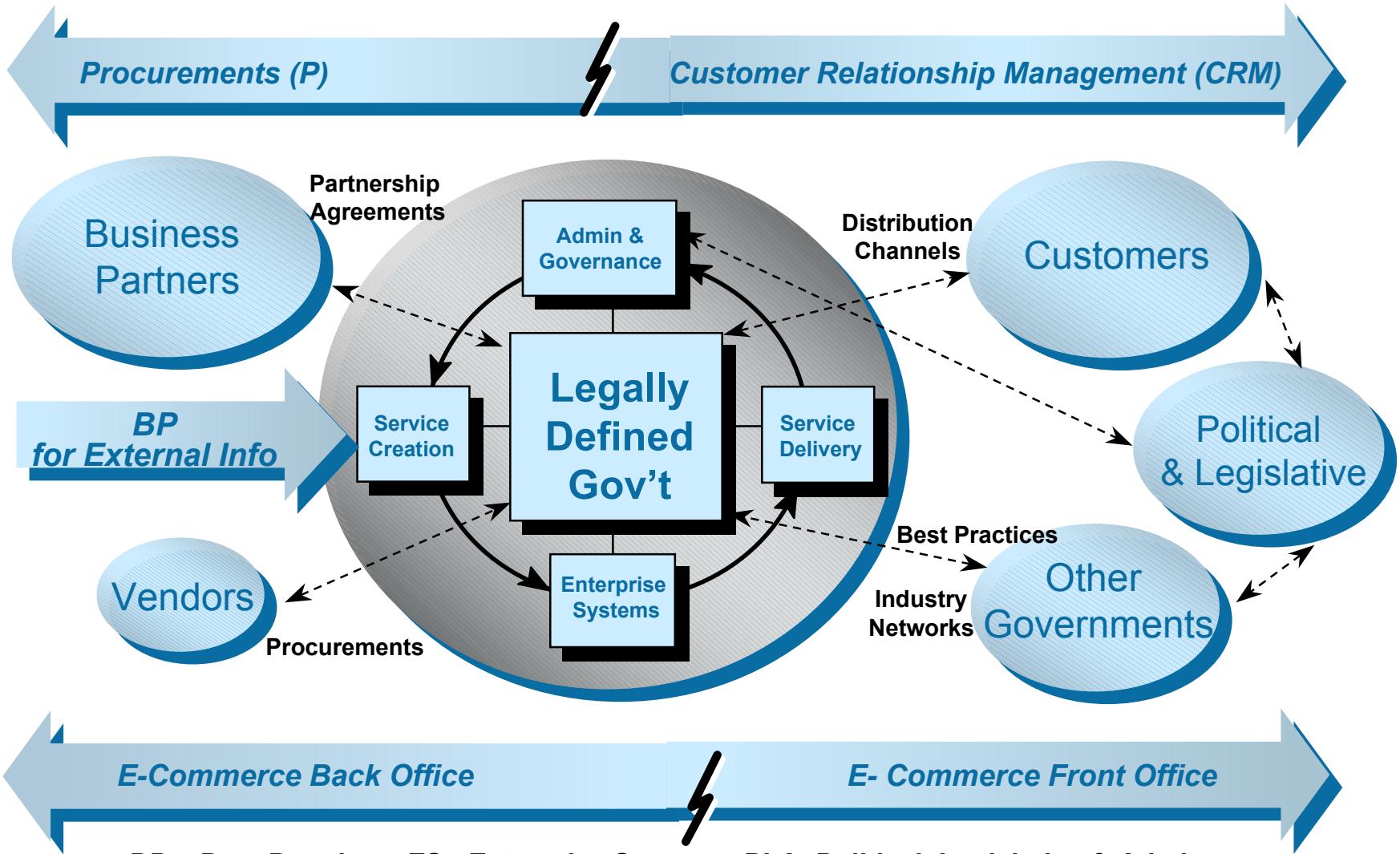
- As an Enterprise (Government Processes That Are Similar to Business Processes):
  - Primary Goal: To Be **Efficient and Effective**
  - Example: Utilities, Airports, Harbors, Fee for Service Enterprises etc.
- As a Service and Information Provider (Government Processes That Are Unique To Government):
  - Primary Goal: To Be **Fair and Equitable**
  - Example: Welfare, Permits, Property Assessment, Fire and Sheriff

What is e-Business?



BI = Business Intelligence, KM = Knowledge Management, CT = Collaboration Technologies

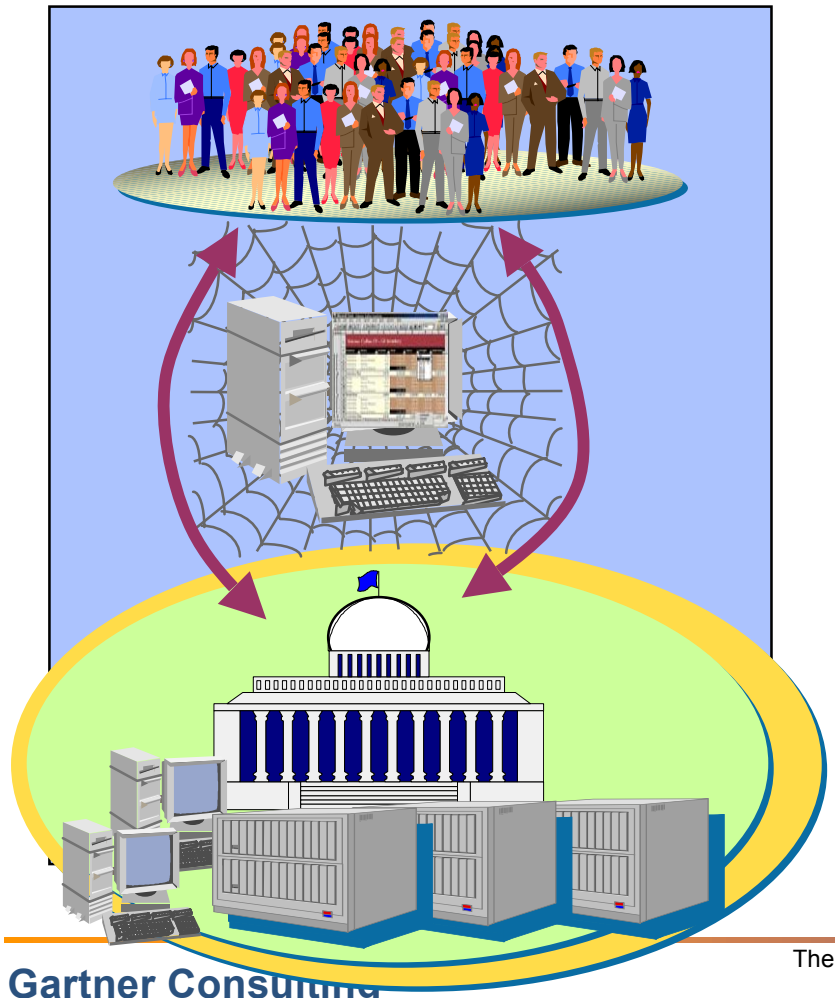
What is e-Government?



BP = Best Practices, ES= Enterprise Systems, PLA=Political, Legislative & Admin

Gartner Consulting Definition of E-Government

E-Government is:



- ("What") The transformation of public sector internal and external relationships
- ("How") Through net-enabled operations, IT and communications
- ("Why") In order to improve:
  1. Government service delivery
  2. Constituency participation
  3. Society

(e-Commerce is only the conduct of business transactions electronically)

Definitions

E-Commerce:

- The use of communications technologies (such as Web-based technologies) for the conduct of business and service delivery transactions while leaving internal or external business processes substantially unchanged

E-Business:

- The transformation of internal and external business processes toward customer-centricity based upon service delivery opportunities offered by information and telecommunications technologies to better fulfill the mission of business (profitability)

Digital Society:

- A society or community that is well advanced in the adoption and integration of digital technology into daily life at home, work and play. A Digital Society is one that is advanced in the adoption of the "New Economy"

Definitions

E-Politics:

- The use of net-enabled operations, information and communications technologies to enhance constituency participation in the political processes of government. In a democracy, e-politics is e-democracy
- It includes applications such as:
  - democracy chat rooms
  - e-campaign funding
  - e-campaign advertising
  - e-voter registration
  - e-vote tallying
  - e-board meeting agenda and broadcast

Definitions

Digital Divide

- The "digital divide" is the gap in opportunities experienced by those with limited accessibility to technology especially, the Internet. This includes accessibility limitations in the following categories:
  - Social Issues (need to talk to a person, etc.)
  - Cultural Issues (language barriers, etc.)
  - Disability Issues (ADA, etc.)
  - Economic Issues (access to technology devices)
  - Learning Issues (marketing, unfamiliarity, changing habits)

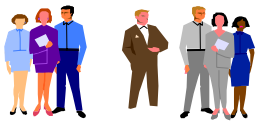
E-Government

Customers

Citizens/Public (G2C)

Businesses (G2B)

Other Governments (G2G)



Visitors (G2V)

Employees (G2E)

Digital Society

E-Digital Society

E-Education

E-Telecommunications

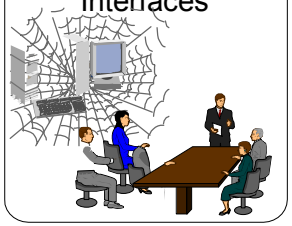
E-Economic Development

E-Digital Society Promotion

Service Requirements & Opinions

E-Politics (E-Democracy)

Agency Governance Interfaces



Action Trigger

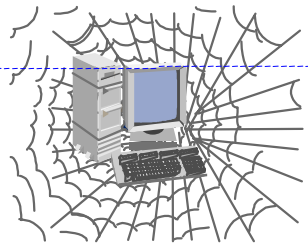
Agency Governance

Digital Divide

E-Service Delivery

Change Mandate

Customer Service Interfaces

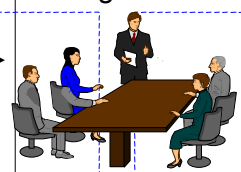


Service Requests

E-Service Delivered

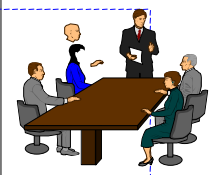
Action Trigger

Service Delivery Organizations



Agency Need

Business Partners/Suppliers



e-Service Created

Goods/Service Delivered

E-CRM/Channel Mgmt./Portal

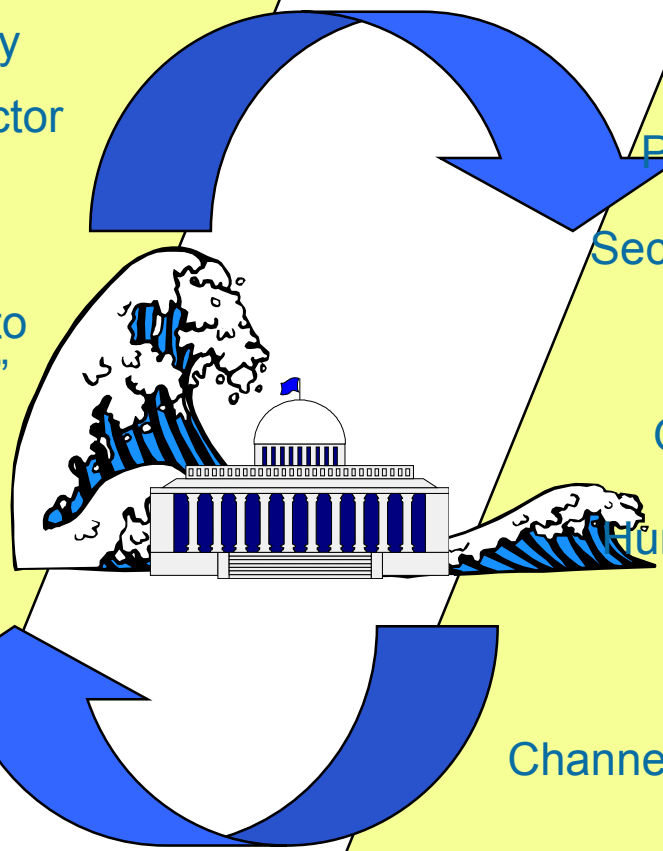
E-Procurement

What Are Key e-Government Drivers and Challenges?

The E-Gov. Tsunami Drivers & Challenges

Drivers

- Technology Opportunity
- Example of Private Sector
- Tsunami of Constituent Demand
- Legislation and Policy to "Reinvent Government"
- Cost Reduction Opportunities
- Service Improvement Opportunities
- Eventual Decline in Sales Tax Revenues



Challenges

- Leadership Issues
- Legal Issues
- Project Funding Issues
- Security & Privacy Issues
- Customer Issues
- Organisational Culture
- Human Resource Issues
- E-Governance Issues
- Measurement Issues
- Channel Management Issues
- Infrastructure Issues

E-Government Challenges

E-Government Challenges

Leadership Issues:

- Committed Executive Leadership (top-down)
- Sufficient Stakeholder Support (bottom-up)

Legal Issues:

- Financial - Restrictions on credit card fee absorption
- Liability - Allocation of liability for fraudulent transactions must be determined:
  - Credit cards: cardholder liability limited to $50
  - Digital Certificates: Under Utah law, owner has unlimited liability
- Case Law - Precedents need further development to encourage replacement of "wet" signatures on documents

E-Government Challenges (cont.)

Project Funding Issues:

- Political Election Cycle – Synchronization of Project and Political Support Timeframe
- Funding Source Restrictions (Fund Accounting)
- Funding Process By Department, Functions, Hierarchical and Stove-piped Fund Accounting
- Difficult to Fund Enterprise-wide Infrastructure or IT Architecture
- Procurement by "Lowest Responsible Bid", not "Best Value"

Security Issues:

- Legal Restrictions on Identity and Authentication (not required to provide finger print to get welfare)
- Fraud
- Non-repudiation
- Vandalism/sabotage
- Espionage

E-Government Challenges (cont.)

Privacy Issues:

- Confidentiality Restrictions (by law)
- Many Government Records Are Highly Sensitive

Customer Issues:

- Customer Base is Mandated, Not Selected
- Customer Transaction is Often not "Quid Pro Quo" (Service Recipient Is Not Payer)
- Customer Accessibility Concerns ("The Digital Divide")
- Customer Security and Privacy Concerns

Organizational Culture Issues:

- Risk Averse Organizational Culture

E-Government Challenges (cont.)

Human Resource Issues:

- Attraction and Retention of Tech Staff
- Laws & Regulation Restrictions (Unions, Data Use)
- Skill Set Issues
  - Procurement Skills
  - Contract Negotiation Skills
  - Contract Management Skills
  - Project Management Skills
  - Technical Skills

Governance Issues:

- Lack of Established e-Gov Governance
- Lack of Enterprise e-Gov Architecture
- Decision-making By Consensus, Not Fiat
- Department/Agency Identity (Brand Recognition)
- Lack of Shared Risk & Reward through Public/Private Partnerships

E-Government Challenges (cont.)

Measurement Issues:

- Return on Investment (ROI) useful, not always used and not total decision criteria
- Other measures often not used
- Cost/Benefit Analysis more complex in government
  - Benefits often hard to measure (quality of service, convenience)
- Shift to knowledge-based work requires new ways of measuring worker performance

Channel Management Issues:

- Difficult to provide same service over multiple channels
- Parallel Processes Problem - Cannot Drop Old Methods

Infrastructure Issues:

- Inadequate Infrastructure
- Lack of Executive Support for Infrastructure
- Mandated Data Center Infrastructure

Drivers & Challenges Conclusions

1. There are tremendous forces driving toward e-Government
2. There are significant challenges to be met to deliver e-Government
3. Challenges in e-Government are more complex and objectives are less clear than for e-Business

"As our situation is new, so we must think anew."

A. Lincoln

e-Government Best Practices Criteria

Gartner Best Practices Criteria

- e-Governance
- e-Architecture
- e-Strategic Planning
- Internet Website Characteristics
- Intranet Website Characteristics
- e-Marketing Plan

Gartner Best Practices Criteria (cont.)

e-Governance

- Is there an e-governance body?
- Is there an e-governance process?
- Is there e-governance policy for:
  - Published Privacy Policy
  - Content Management Policy
  - Authentication Policy
  - Advertising Policy
  - Convenience Fee Policy
- Is there an enterprise funding plan?
- What is the sourcing strategy (in-house, public/private, outsource)

Gartner Best Practices Criteria (cont.)

e-Architecture

- Is there an enterprise e-Architecture Plan?
- Are there e-standards, processes and enforcement mechanisms?
- What is the level of integration to the "back-end"?
- Are there alternative channels?
- Have shared services been determined?
  - Authentication
  - Payment Management
  - Collection Management
  - GIS
  - Directory Services

Gartner Best Practices Criteria (cont.)

e-Strategic Planning

- Digital Society Plan?
- e-Politics Plan?
- e-Government Plan?

Internet Website Characteristics

- Organized by Department or by Process?
- What Level of e-Gov Evolution (4 Phases)?
- Does site use multi-media?
  - Audio, video clips
- What is site accessibility?
  - Social, Cultural (Language), Disabilities (ADA), Economic
- What are site escalation methods?
  - Phone number, email, address, 800 #, FAQ
- What are site protections?
- What is site extensibility?

Gartner Best Practices Criteria (cont.)

Intranet Website Characteristics

- Is there one or more county Intranet site(s)?
- What services does Intranet site provide employee customers?
  - My HR - query, updates, "what if"
  - Job opportunities
  - Rules and regulations
  - Policies

e-Marketing Plan

- Is there a enterprise level e-marketing plan?
- Does the plan "reach out" to segments of the customer population?
- Is there a Customer Center for assistance?
- Is there an escalation scheme for customer service?

Measures and Metrics

- Have measures (output and outcome) been established?
- Has a baseline been established (e.g. revenue, persons served)?
- Are there measures of customer satisfaction?
- Are there efficiency (cost) measures?

How Should Governments Proceed in Development of e-Government?

How Should Governments Proceed in Development of e-Government?

- Develop e-Governance
- Develop e-Government Strategic Plan
- Develop e-Architecture

E-Government Governance

E-Government Governance

Executive Branch

E-Gov Program Office

- E-Business Executive
- Finance
- Legal
- IT
- HR
- Members from Each Dept.

- **Policies**
- **Architecture**
- **Standards**
- **Services**
- **Project Approval**
- **Measurement**

Web Masters & Data Guardians

Contract Admin

Vendors

Gartner Consulting

Government Associations

Departments & Divisions

Executive Branch Polling

Purchasing E-Procurement

On-Line Revenue & Taxation

Motor Vehicles E-Commerce

Health & Welfare E-Commerce

On-line Plans & Permits

On-line Licensing

Judicial & Enforcement Citation Payments

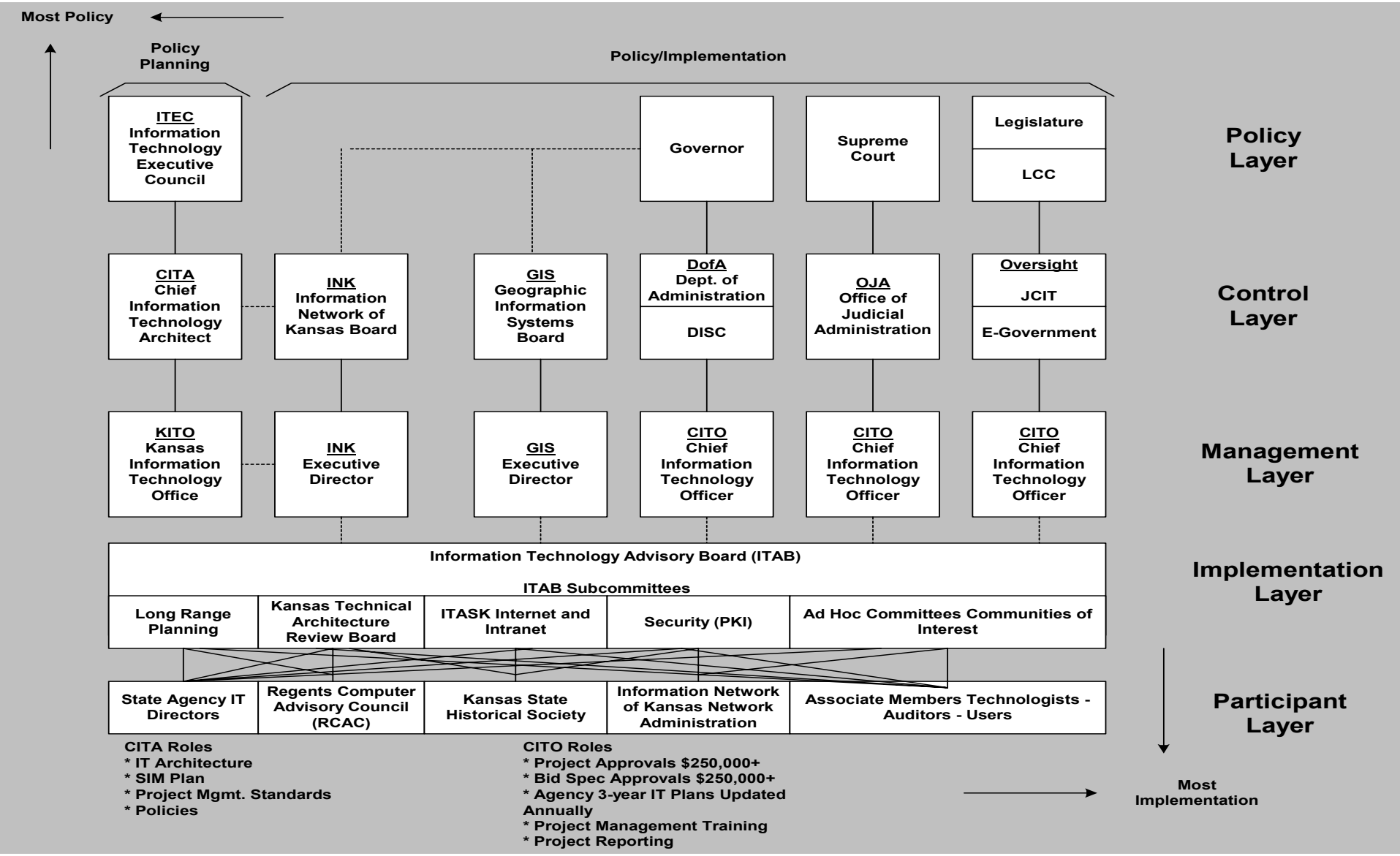
On-line Geographic Information

On-line Class Registration

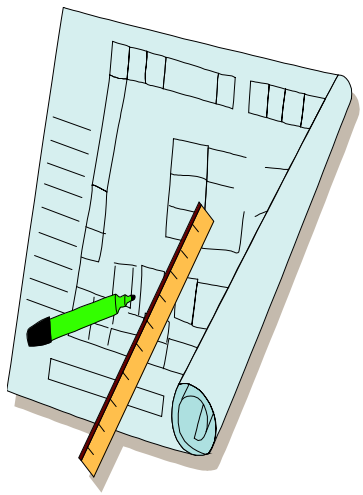
Governing Magazine
THE GOVERNMENT PERFORMANCE PROJECT
State Grades Then and Now 1999 / 2001

State	Financial Management	Capital Management	Human Resources	Managing for Results	Information Technology	AVERAGE GRADE
Kansas	B- B-	B B	B+ B+	C C+	C+ A-	**B- B**
Michigan	A- A-	B+ A-	B+ B+	B B+	B+ A-	**B+ A-**
Missouri	A- B+	A B+	B B+	A- A-	B+ A-	**A- B+**
Utah	A A	A A-	B+ B-	B+ B+	B+ A	**A- A-**
Virginia	A B+	A B+	B B+	A- A-	A- A-	**A- B+**
Washington	A- B+	A A-	B+ A-	B+ A-	A A	**A- A-**

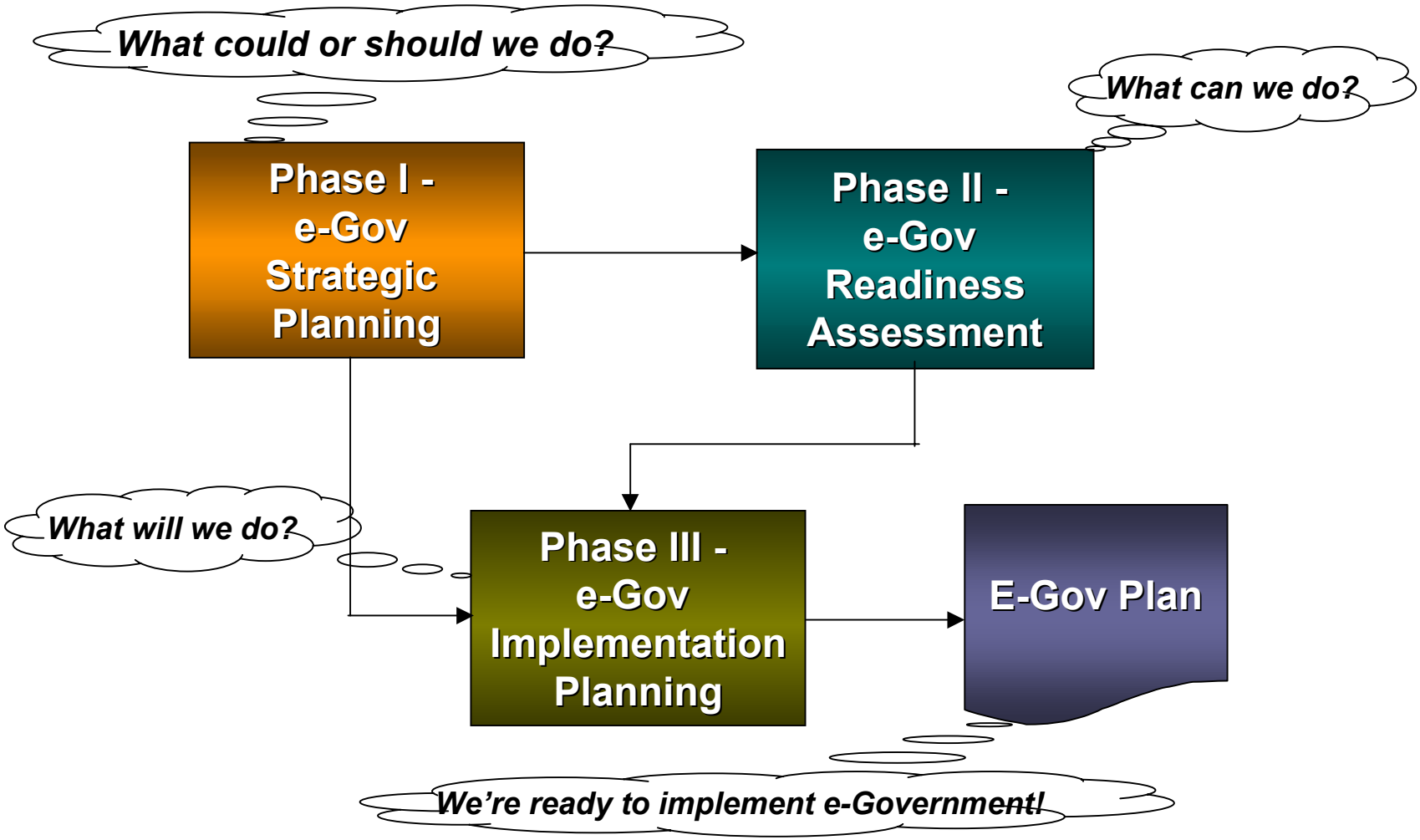
State of Kansas IT Governance Structure



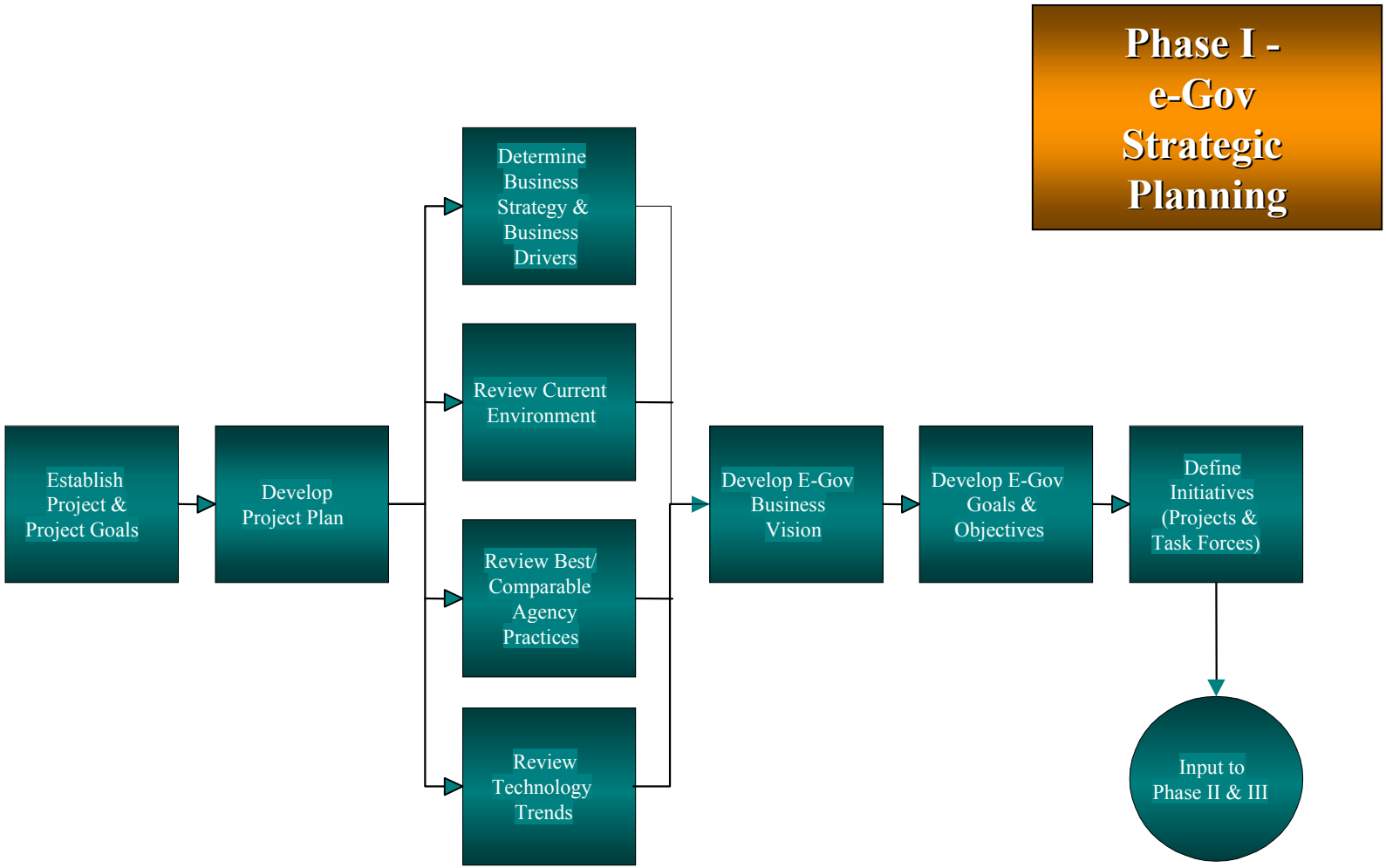
E-Government Strategic Planning



Gartner's e-Government Planning Methodology

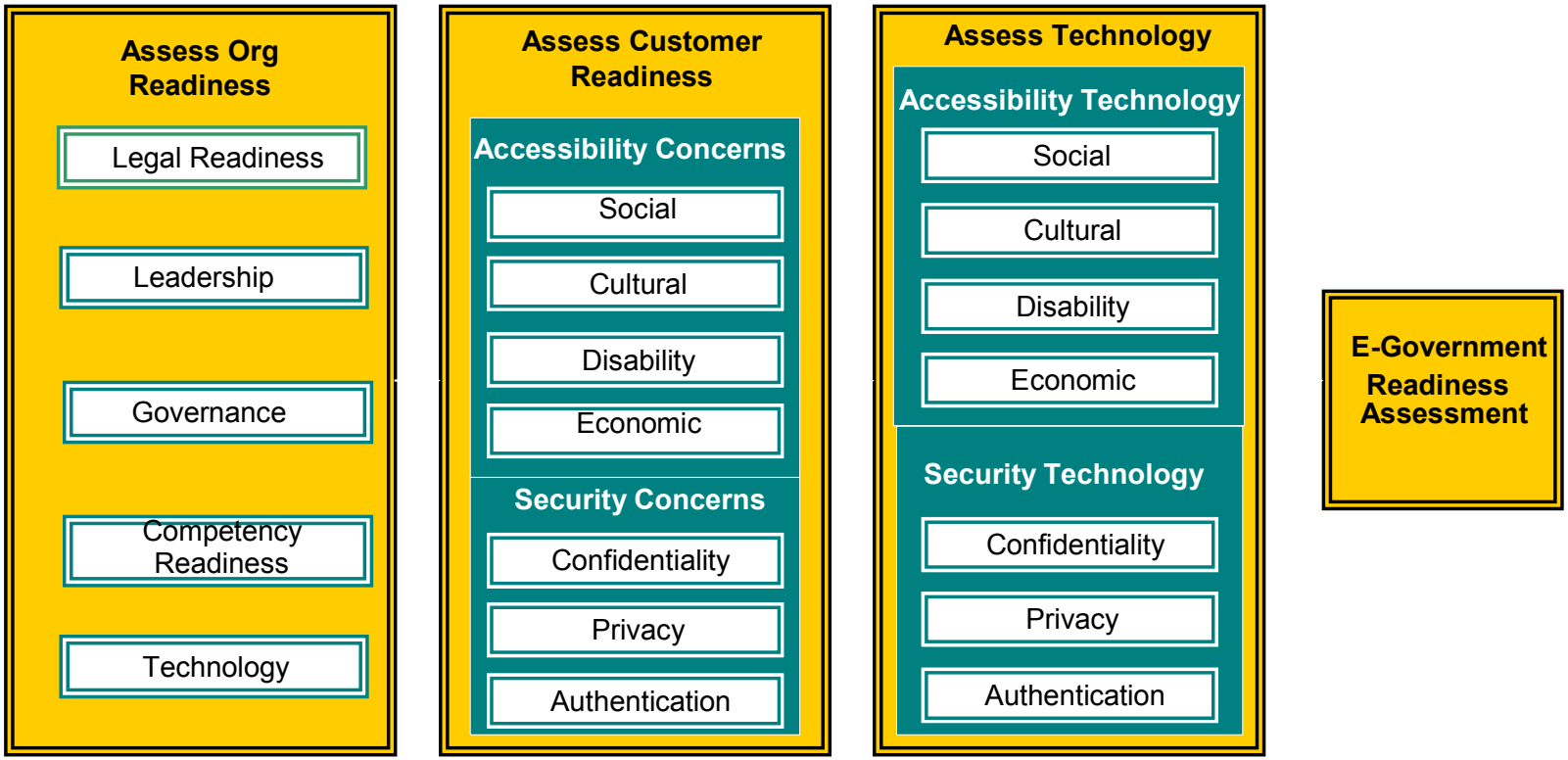


E-government Planning

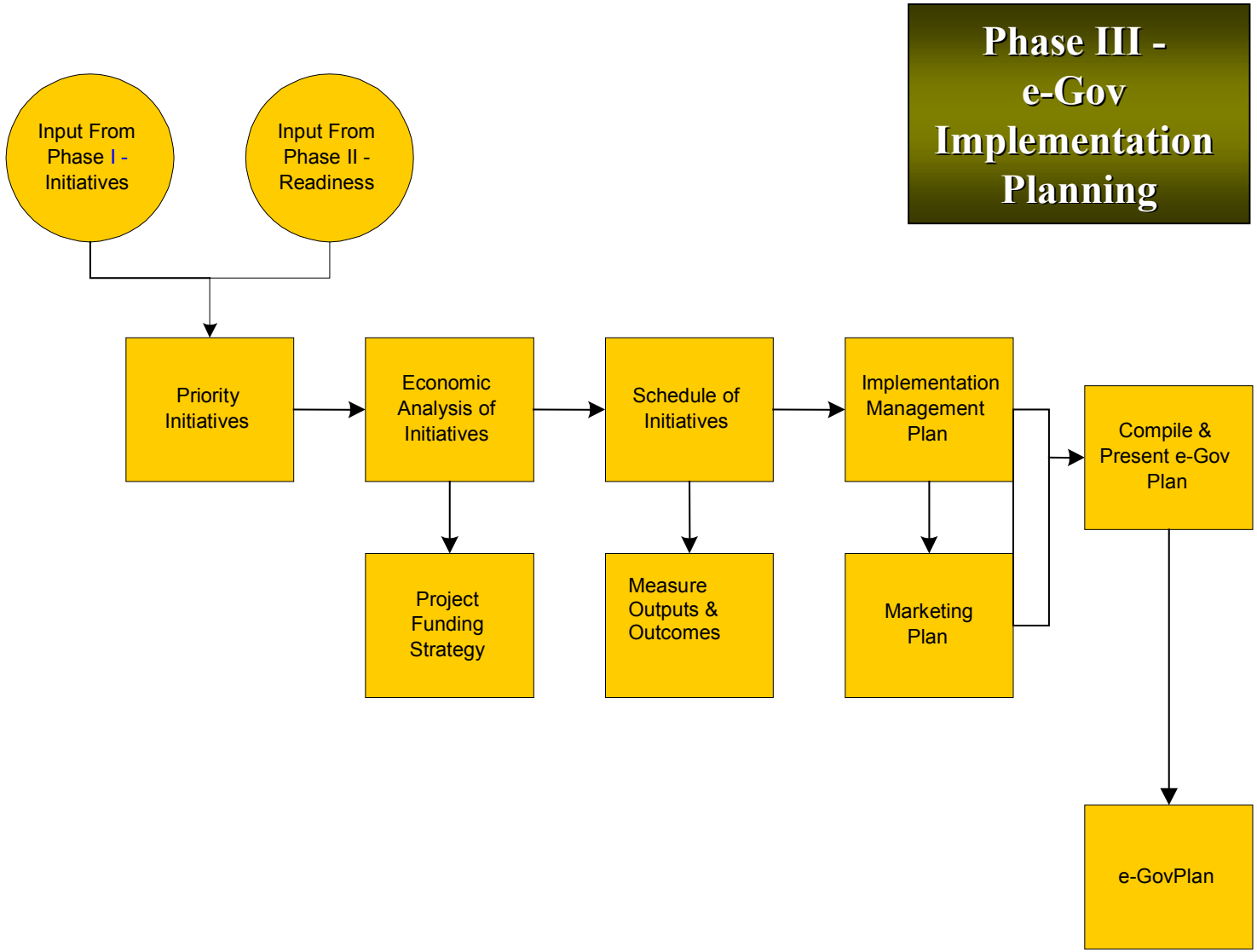


Readiness Assessment

Phase II - e-Gov Readiness Assessment



Implementation Planning



E-Government Architecture

Basic E-Government Concepts

E-Government Functions

- e-Democracy (e-voting, e-campaign, chat rooms)
- e-Service Delivery (government services via e-)
- e-Digital Society (the new high-tech economy)

e-Service Delivery

- Customer-Centricity (customer viewpoint)
- Multi-Channel (mail, fax, phone, email, web, etc.)
- Shift of Customer from Staff of Agency to Customer of Agency:
  - Unknown skill set
  - Unknown work hours
  - Unknown transaction volume
  - Unknown abilities/disabilities

E-Government Service Delivery Paradigm Shift

Old Service Delivery Model

Information System

Information System

Government Agency

Government Agency

- Citizen
- Business
- Visitor
- Employees

New Service Delivery Model

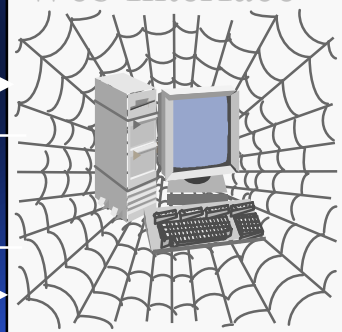
Government Agency

Government Agency

Information System

Information System

Web Interface



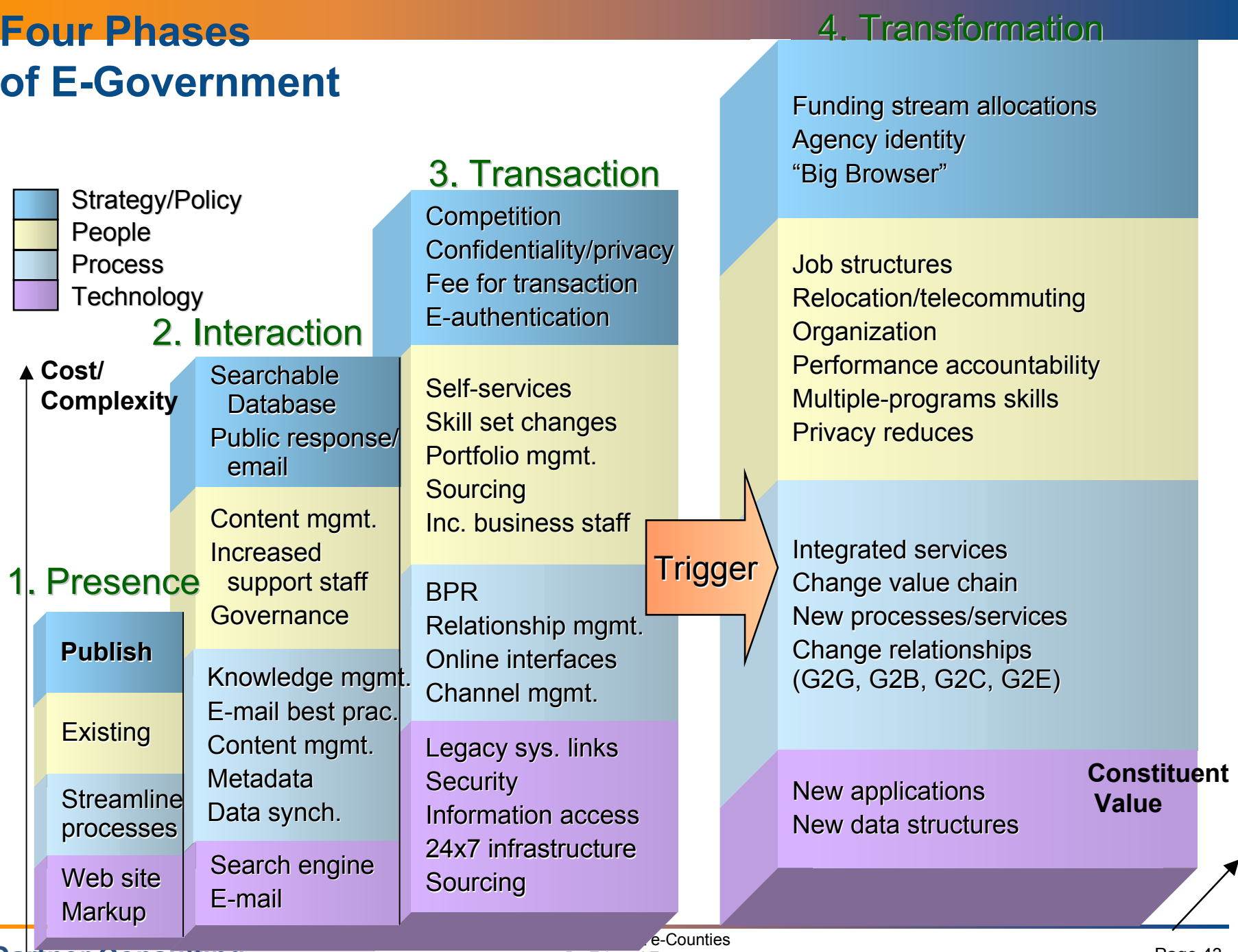
- Citizen
- Business
- Visitor
- Employees

- Unknown skill set
- Unknown work hours

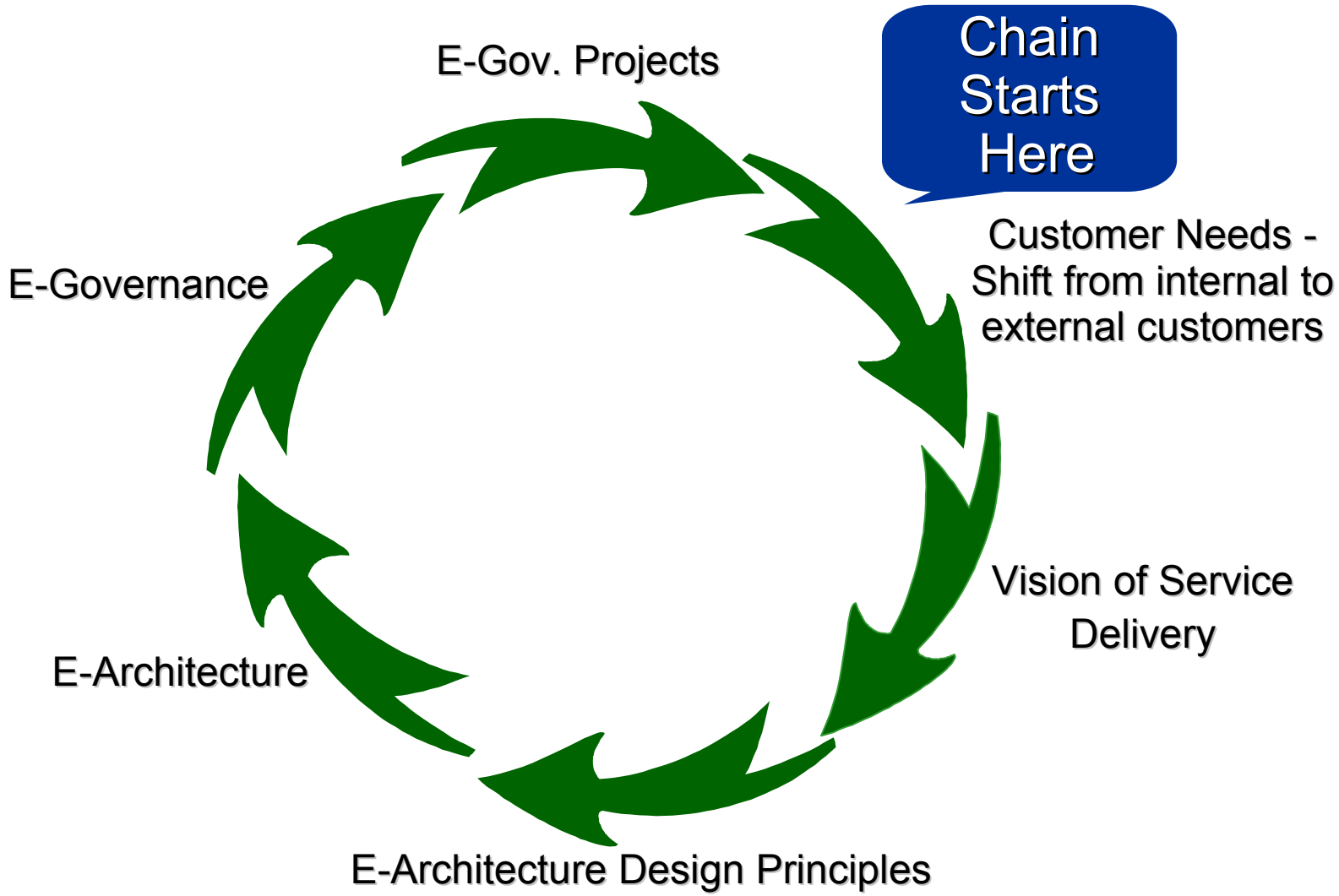
- Unknown transaction volume
- Unknown abilities/disabilities

By Edward Fraga

Four Phases of E-Government



Chain of Necessity



E-Architecture Driver – Customer Needs

Customers:

1. Are Beginning to Expect e-Retailer Services From Gov't.
2. Want Services Anytime
3. Want Services Anywhere
4. Desire both Traditional and New Channel Service Delivery
5. Want To Access Same Service In Many Different Ways
6. Want to Access Services By Event Life Cycles
7. Want Less Paper and Better Record Keeping
8. Expect Government to Accommodate Differences in Customers (Digital Divide)
9. Want Service Delivery Security and Privacy

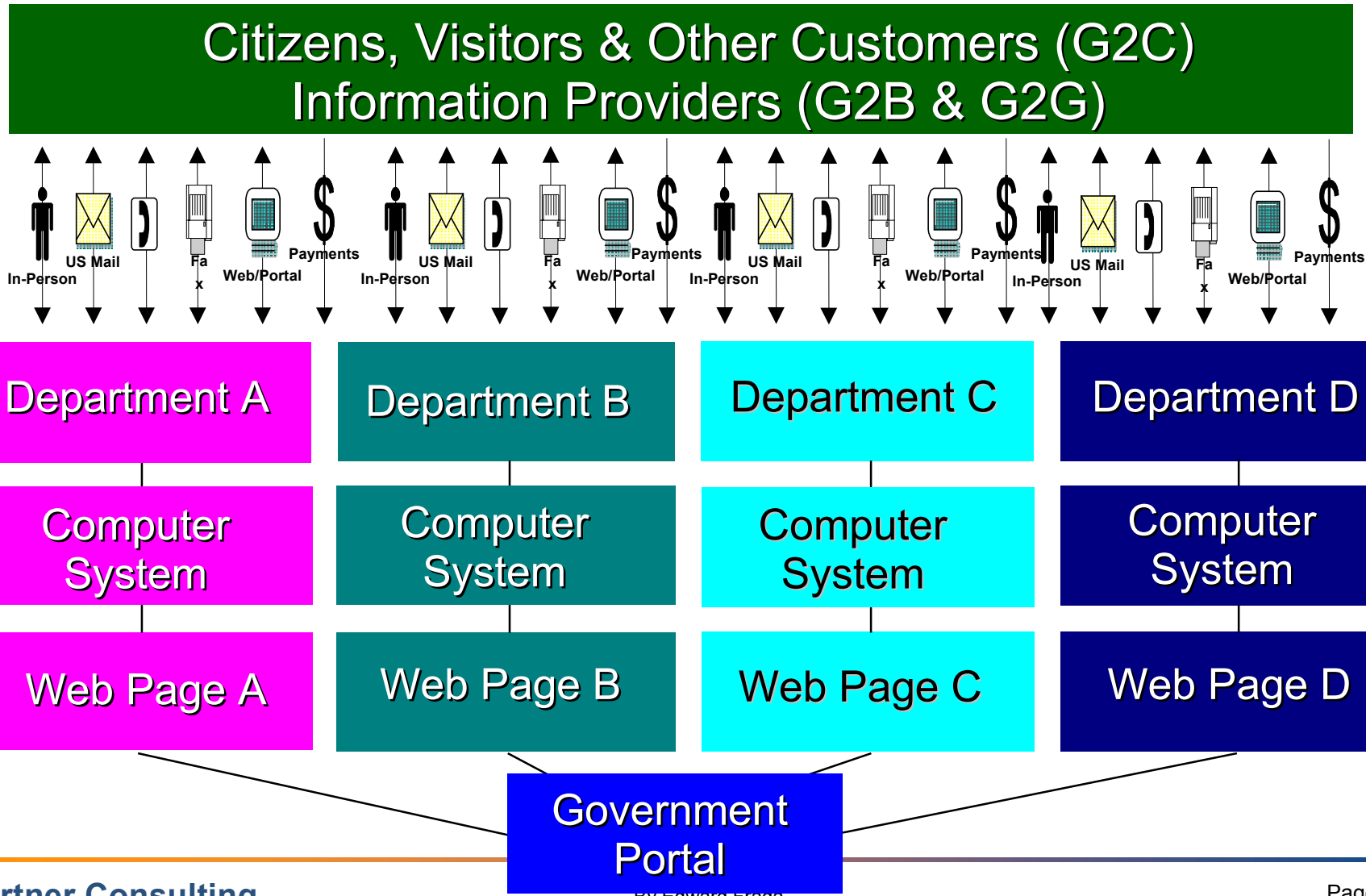
The Vision of Service Delivery – In Response to Customers, Gov't Must:

1. Provide Services and Transform Its Systems Based on Customer Centricity Mandate
2. Provide Service Anytime (24x7), and via Web to Any Device
3. Provide Coordinated and Consistent Service and Unified Workflow Regardless of Customer Channel Preference
4. Organize Service Delivery by Event Life Cycle
5. Organize All Government Web Sites Based on Customer View of Services (Unified Web Presence)
6. Track All Customer Interactions to Provide Quality Customer Service (Unified Customer History)
7. Define an Escalation of Service Delivery So That All Customer Transactions Are Efficiently Resolved
8. Provide Accessibility Alternatives
9. Ensure High Levels of Customer Security and Privacy

E-Architectural Design Principles

1. The government IT customer has shifted from staff (internal) to the customer of the government (external).
2. System (business processes and org. structure) must be customer-centric.
3. System must accommodate a user population that is diverse in abilities and interests.
4. System must accommodate usage that fluctuates widely depending on community events (scalability).
5. System must be available at any time (availability).
6. Multiple channels are required but must consolidate into a uniform processing flow.

Typical "Unarchitected" E-Government



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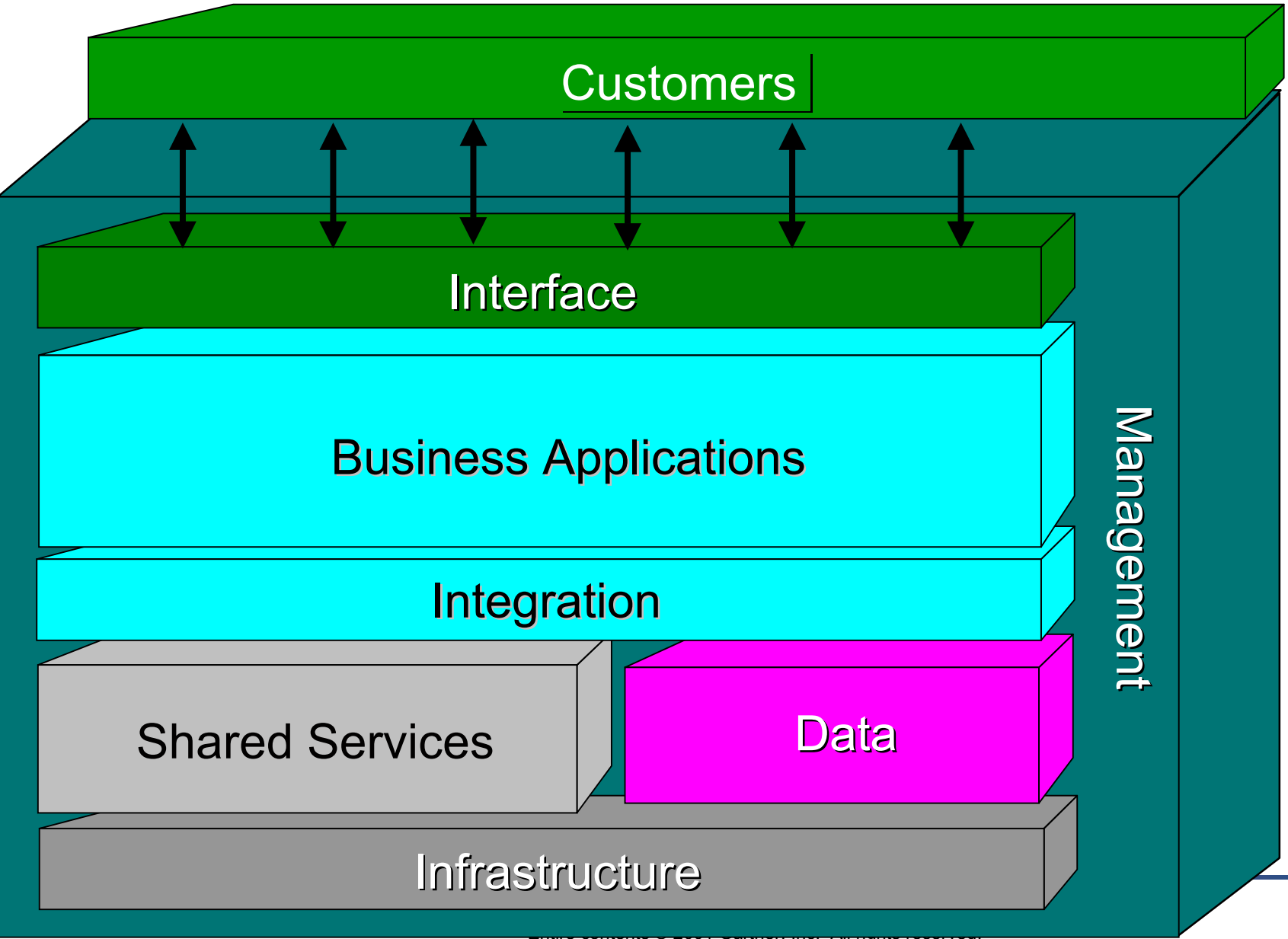
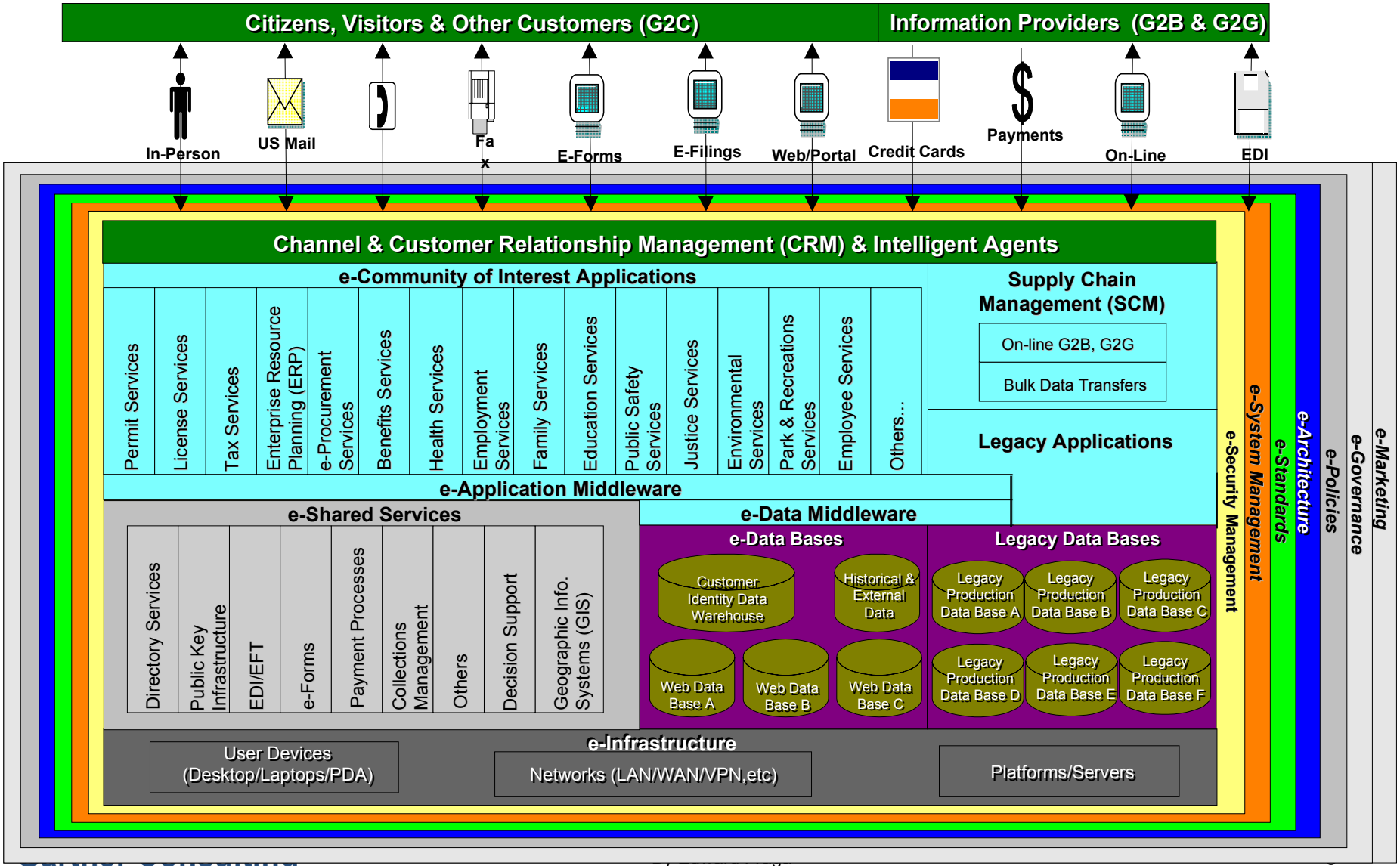
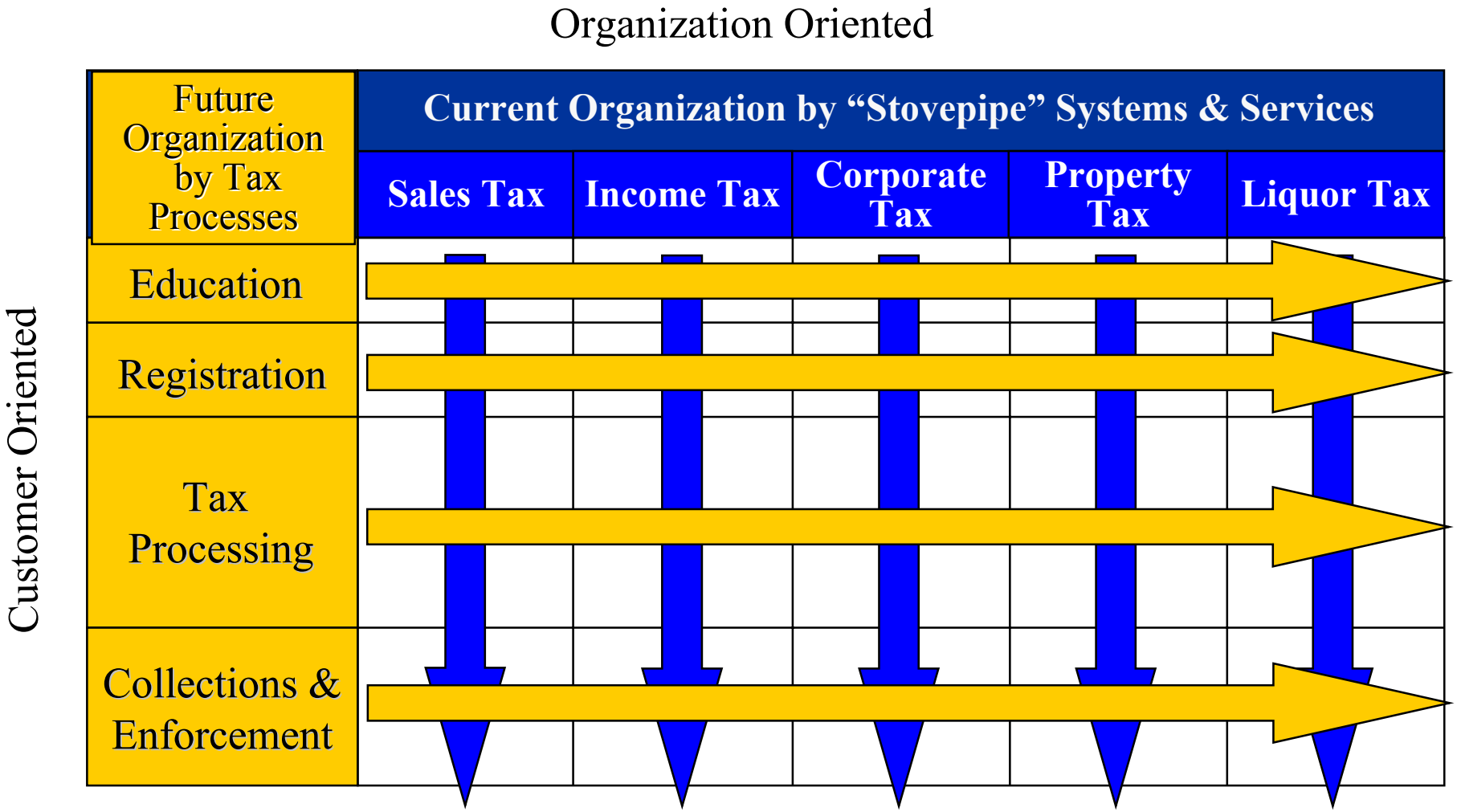
Overview of E-Government Conceptual Architecture



Detailed View of E-Government Architecture



The E-Government Transformation
An Example -
A Department of Revenue Integrated Tax System



Conclusion

Conclusions - The Future

- Your first and most common source of interaction with government will be via the Internet
- Government will be available to you at night and on weekends (when you need it)
- There will be a defined escalation path that takes you from standard software through email, telephone and in person interaction with government
- Government employee workload will increasingly involve handling "special cases" that are not easily processed via Web applications
- Fewer government office workers will need to be located in government buildings
  - They will be measured via application software
  - They will work from home 2-3 days per week
  - They will lessen impact on the environment and traffic
- Physical presence of government will be constant and then diminish
- All of this will lead to…Virtual Government!

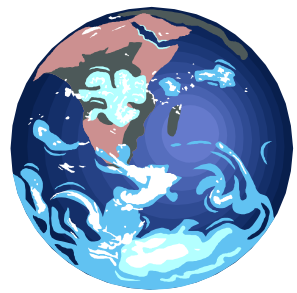
Instead of Big Brother, it will be Big Browser!

Conclusions - e-Government Planning

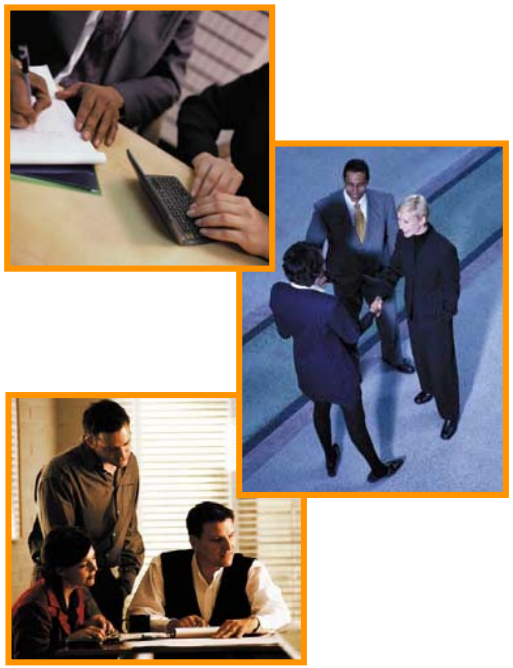
- E-Gov represents an revolutionary (epochal) opportunity
- As government is intrinsically different than business, so e-Government should be different than e-Business
- e-Government will be the transformation of government systems, processes and organization beyond anything thus far experienced
- A successful e-Government implementation requires:
  - An understanding of the unique considerations of government
  - Careful planning and preparation
  - A fusion of strategic business and technology planning

The lull is over….

The Tsunami is heading toward you!



Gartner



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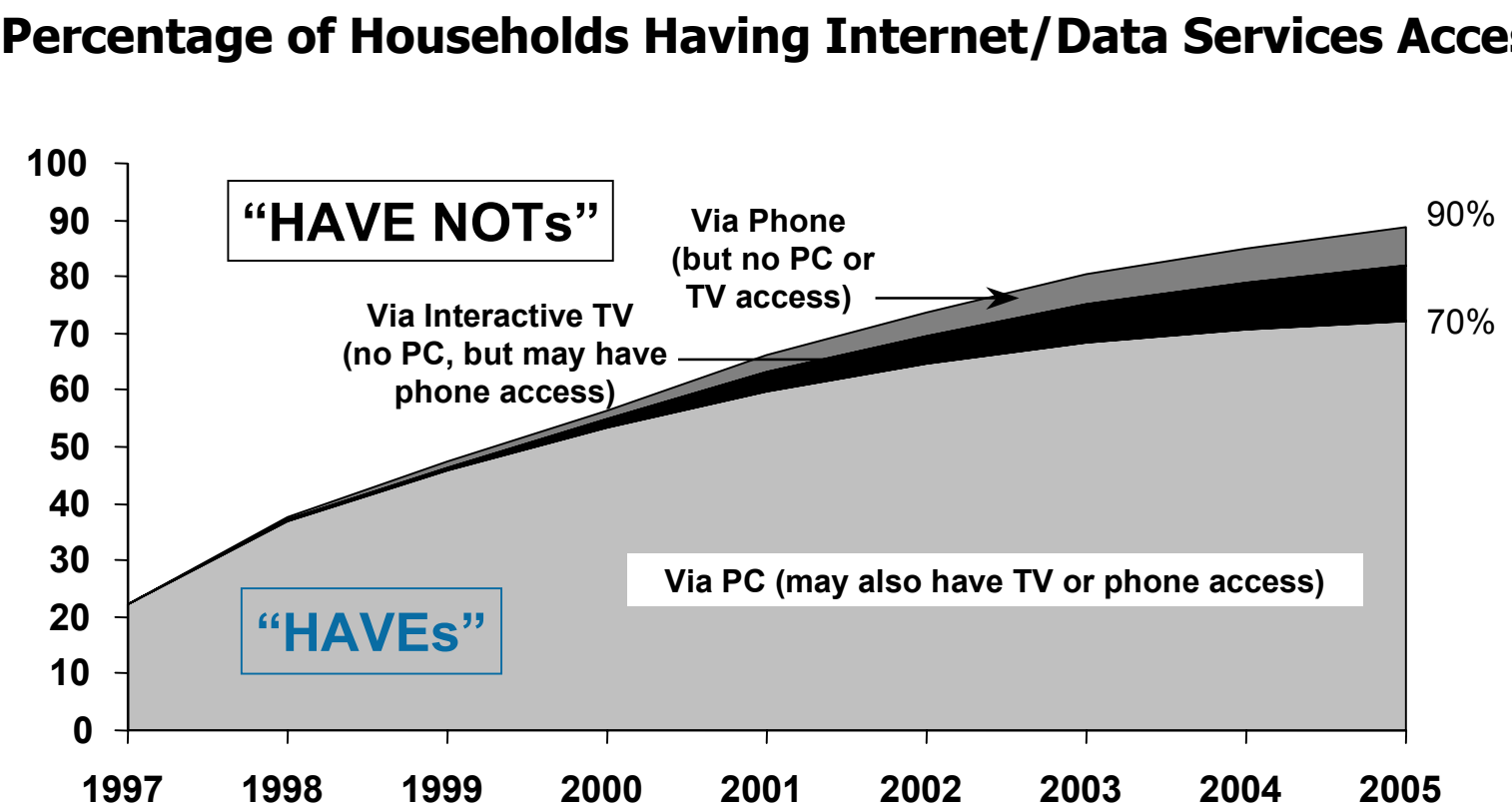
Digital Divide - Citizen Access - Internet Adoption Curve



PC access: must have Internet/OLS subscription; access by other devices: excludes non-addressable services